



SEQUENCE LISTING

GENERAL INFORMATION:

(i) APPLICANT: PLANTECHNO S.R.L.

(ii) TITLE OF INVENTION:

SYNTHETIC POLYNUCLEOTIDE ENCODING HUMAN LACTOFERRIN,
VECTORS, CELLS AND TRANSGENIC PLANTS CONTAINING IT

(iii) NUMBER OF SEQUENCES: 22

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Società Italiana Brevetti

(B) STREET: Piazza di Pietra, 39

(C) CITY: Roma

(D) COUNTRY: Italy

(E) POSTAL CODE: I-00186

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE:

(B) COMPUTER: IBM PC compatible

(C) OPERATING SYSTEM: PC-DOS/MS-DOS Rev. 5.0

(D) SOFTWARE: Microsoft Word 6.0

(viii) ATTORNEY INFORMATION

(A) NAME: LEONE, Mario (Eng.)

(B) REFERENCE: PC-EBR

(ix) TELECOMMUNICATION INFORMATION

(A) TELEPHONE: 06/695441

(B) TELEFAX: 06/69544830

(C) TELEX: 612287 ROPAT

(1) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 2079 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURES

- (A) NAME: LFUSYN

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

GGC CGT AGG AGA AGG AGT GTT CAA TGG TGC GCA GTA TCA CAA CCA 45
G R R R R S V Q W C A V S Q P

GAG GCC ACA AAA TGC TTC CAA TGG CAA AGG AAT ATG AGA AAA GTT 90
E A T K C F Q W Q R N M R K V

CGT GGA CCT CCT GTA TCT TGC ATA AAG AGA GAT TCA CCC ATC CAG 135
R G P P V S C I K R D S P I Q

TGT ATC CAG GCA ATT GCG GAA AAC AGA GCT GAT GCT GTG ACT CTT 180
C I Q A I A E N R A D A V T L

GAT GGT GGT TTC ATA TAC GAG GCA GGA CTT GCC CCA TAC AAA CTG 225
D G G F I Y E A G L A P Y K L

CGA CCT GTA GCG GCG GAA GTC TAC GGG ACC GAA AGA CAA CCA CGA 270
R P V A A E V Y G T E R Q P R

ACT CAC TAT TAT GCT GTG GCT GTT GTG AAG AAG GGC GGA TCT TTT 315
T H Y Y A V A V V K K G G S F

CAG CTG AAC GAA CTT CAA GGT CTG AAG TCA TGC CAC ACA GGA CTT 360
Q L N E L Q G L K S C H T G L

CGC AGG ACC GCT GGA TGG AAT GTC CCT ATA GGG ACA CTT CGT CCA 405
R R T A G W N V P I G T L R P

TTC TTG AAT TGG ACG GGT CCA CCT GAG CCC ATT GAG GCA GCT GTG 450
F L N W T G P P E P I E A A A V

GCA AGA TTC TTC TCA GCC TCT TGT GTT CCA GGT GCA GAT AAA GGA 495
A R F F S A S C V P G A D K G

CAA TTC CCC AAC CTT TGT CGC CTG TGT GCG GGG ACA GGG GAA AAC 540
Q F P N L C R L C A G T G E N

AAA TGT GCA TTC TCA TCC CAG GAA CCG TAC TTC AGC TAC TCT GGT 585
K C A F S S Q E P Y F S Y S G

GCC TTT AAG TGT CTT AGA GAC GGT GCT GGA GAT GTT GCT TTT ATT 630
A F K C L R D G A G D V A F I

AGA GAG AGC ACA GTG TTT GAG GAT CTT TCA GAC GAG GCT GAA AGG 675
R E S T V F E D L S D E A E R

GAC GAG TAT GAG TTA CTC TGC CCA GAC AAC ACT CGT AAG CCA GTT 720
D E Y E L L C P D N T R K P V

GAC AAG TTC AAA GAT TGC CAT CTT GCA CGG GTC CCT TCT CAT GCC 765
D K F K D C H L A R V P S H A

GTT GTG GCA CGA AGT GTT AAT GGA AAG GAG GAT GCC ATC TGG AAT 810
V V A R S V N G K E D A I W N

CTT CTC CGC CAA GCA CAG GAA AAG TTT GGA AAG GAC AAG TCA CCG 855
L L R Q A Q E K F G K D K S P

AAA TTC CAG CTC TTT GGT TCC CCT AGT GGG CAG AAA GAT CTT CTG 900
K F Q L F G S P S G Q K D L L

TTC AAG GAC TCT GCC ATT GGG TTT TCG AGA GTG CCA CCT AGG ATA 945
F K D S A I G F S R V P P R I

GAT	TCT	GGG	TTG	TAC	CTT	GGC	TCC	GGA	TAC	TTT	ACT	GCA	ATT	CAG	990
D	S	G	L	Y	L	G	S	G	Y	F	T	A	I	Q	
AAC	TTG	AGG	AAA	AGT	GAG	GAG	GAA	GTT	GCT	GCC	CGG	CGT	GCG	CGG	1035
N	L	R	K	S	E	E	E	V	A	A	R	R	A	R	
GTC	GTT	TGG	TGT	GCG	GTG	GGA	GAG	CAA	GAG	TTG	CGC	AAG	TGT	AAC	1080
V	V	W	C	A	V	G	E	Q	E	L	R	K	C	N	
CAG	TGG	AGT	GGT	TTG	AGC	GAA	GGA	TCT	GTG	ACC	TGC	TCA	TCG	GCC	1125
Q	W	S	G	L	S	E	G	S	V	T	C	S	S	A	
TCC	ACT	ACA	GAA	GAT	TGC	ATC	GCC	CTG	GTG	TTG	AAA	GGA	GAA	GCT	1170
S	T	T	E	D	C	I	A	L	V	L	K	G	E	A	
GAT	GCC	ATG	AGT	TTG	GAT	GGA	GGA	TAT	GTT	TAC	ACT	GCA	GGT	AAA	1215
D	A	M	S	L	D	G	G	Y	V	Y	T	A	G	K	
TGT	GGT	TTG	GTG	CCT	GTC	CTT	GCA	GAG	AAC	TAC	AAA	TCA	CAA	CAA	1260
C	G	L	V	P	V	L	A	E	N	Y	K	S	Q	Q	
AGC	AGT	GAC	CCT	GAT	CCT	AAC	TGT	GTG	GAT	AGA	CCT	GTG	GAA	GGA	1305
S	S	D	P	D	P	N	C	V	D	R	P	V	E	G	
TAT	CTT	GCT	GTG	GCG	GTG	GTT	AGG	AGA	TCA	GAC	ACT	AGC	CTT	ACC	1350
Y	L	A	V	A	V	V	R	R	S	D	T	S	L	T	
TGG	AAC	TCT	GTG	AAA	GGC	AAG	AAG	TCC	TGC	CAC	ACC	GCC	GTG	GAC	1395
W	N	S	V	K	G	K	K	S	C	H	T	A	V	D	
AGG	ACT	GCA	GGT	TGG	AAT	ATC	CCC	ATG	GGA	TTG	CTC	TTC	AAC	CAG	1440
R	T	A	G	W	N	I	P	M	G	L	L	F	N	Q	
ACG	GGC	TCC	TGC	AAA	TTT	GAT	GAA	TAT	TTC	AGT	CAA	AGC	TGT	GCC	1485
T	G	S	C	K	F	D	E	Y	F	S	Q	S	C	A	
CCT	GGT	TCT	GAC	CCA	AGA	TCT	AAT	CTC	TGT	GCT	TTG	TGT	ATT	GGA	1530

P G S D P R S N L C A L C I G	1575
GAT GAG CAA GGT GAG AAT AAG TGC GTT CCC AAC AGC AAC GAG AGA	1575
D E Q G E N K C V P N S N E R	
TAC TAC GGT TAC ACT GGG GCT TTC CGT TGC TTG GCT GAG AAT GCT	1620
Y Y G Y T G A F R C L A E N A	
GGA GAC GTT GCA TTT GTG AAA GAT GTC ACT GTC TTG CAG AAC ACT	1665
G D V A F V K D V T V L Q N T	
GAT GGA AAT AAC AAT GAG GCA TGG GCT AAG GAT TTG AAG CTT GCA	1710
D G N N N E A W A K D L K L A	
GAC TTT GCG TTG CTG TGC CTC GAT GGC AAA CGT AAG CCT GTG ACT	1755
D F A L L C L D G K R K P V T	
GAA GCT AGA AGC TGC CAT CTT GCC ATG GCC CCG AAT CAT GCT GTG	1800
E A R S C H L A M A P N H A V	
GTG TCT CGT ATG GAT AAG GTG GAA CGC TTG AAA CAG GTG TTG CTC	1845
V S R M D K V E R L K Q V L L	
CAC CAA CAG GCT AAA TTT GGT AGA AAT GGA TCT GAC TGC CCG GAC	1890
H Q Q A K F G R N G S D C P D	
AAG TTT TGC TTA TTC CAG TCT GAA ACC AAA AAC CTT TTG TTC AAT	1935
K F C L F Q S E T K N L L F N	
GAC AAC ACT GAG TGT CTT GCC AGA CTC CAT GGC AAA ACA ACA TAT	1980
D N T E C L A R L H G K T T Y	
GAA AAA TAT TTG GGA CCA CAG TAT GTC GCA GGC ATT ACT AAT CTG	2025
E K Y L G P Q Y V A G I T N L	
AAA AAG TGC TCA ACC TCC CCA CTC CTA GAA GCC TGT GAA TTC CTA	2070
K K C S T S P L L E A C E F L	

AGG AAG TAA

2079

R K *

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 30 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 46

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

GGATCCATGG GCCGTAGGAG AAGGAGTGTT

30

(3) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 32 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 47

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

GAGCTCCTTC GGTTTTACTT CCTGAGGAAT TC

32

(4) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 42 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 48
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

TCTAGATAAA ATAATCTATA CATTAAAAAA TTTGATTTA AA 42

(5) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 36 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide
(ix) FEATURES

- (A) NAME: PLT 49

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

GGATCCGACT GAGTCGGATA AGAAGAAAAG AAAAGA 36

(6) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 36 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide
(ix) FEATURES

- (A) NAME: PLT 50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

TCTAGAGTTT TCAAATTGGA ATTTTAATGT GTGTTG 36

(7) INFORMATION FOR SEQ ID NO: 7:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 36 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: oligonucleotide
- (ix) FEATURES
 - (A) NAME: PLT 51
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

GGATCCCACC TTAAGGAGGT TGCAACGAGC GTGGCA 36

- (8) INFORMATION FOR SEQ ID NO:8:
- (i) SEQUENCE CHARACTERISTICS
 - (A) LENGTH: 250 bp
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: oligonucleotide
- (ix) FEATURES
 - (A) NAME: PLT 120
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

GGC CGT AGG AGA AGG AGT GTT CAA TGG TGC GCA GTA TCA CAA CCA GAG

GCC ACA AAA TGC TTC CAA TGG CAA AGG AAT ATG AGA AAA GTT CGT GGA

CCT CCT GTA TCT TGC ATA AAG AGA GAT TCA CCC ATC CAG TGT ATC CAG

GCA ATT GCG GAA AAC AGA GCT GAT GCT GTG ACT CTT GAT GGT GGT TTC

ATA TAC GAG GCA GGA CTT GCC CCA TAC AAA CTG CGA CCT GTA GCG GCG

GAA GTC TAC G

- (9) INFORMATION FOR SEQ ID NO:9:
- (i) SEQUENCE CHARACTERISTICS
 - (A) LENGTH: 250 bp
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

- (ii) MOLECULE TYPE: oligonucleotide
- (ix) FEATURES
 - (A) NAME: PLT 121
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

GC ACC TGG AAC ACA AGA GGC TGA GAA GAA TCT TGC CAC AGC TGC CTC
AAT GGG CTC AGG TGG ACC CGT CCA ATT CAA GAA TGG ACG AAG TGT CCC
TAT AGG GAC ATT CCA TCC AGC GGT CCT GCG AAG TCC TGT GTG GCA TGA
CTT CAG ACC TTG AAG TTC GTT CAG CTG AAA AGA TCC GCC CTT CTT CAC
AAC AGC CAC AGC ATA ATA GTG AGT TCG TGG TTG TCT TTC GGT CCC GTA
GAC TTC CGC CG

- (10) INFORMATION FOR SEQ ID NO:10:
- (i) SEQUENCE CHARACTERISTICS
 - (A) LENGTH: 250 bp
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: oligonucleotide
- (ix) FEATURES
 - (A) NAME: PLT 122
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

AAC TGG CTT ACG AGT GTT GTC TGG GCA GAG TAA CTC ATA CTC GTC
CCT TTC AGC CTC GTC TGA AAG ATC CTC AAA CAC TGT GCT CTC TCT
AAT AAA AGC AAC ATC TCC AGC ACC GTC TCT AAG ACA CTT AAA GGC
ACC AGA GTA GCT GAA GTA CGG TTC CTG GGA TGA GAA TGC ACA TTT
GTT TTC CCC TGT CCC CGC ACA CAG GCG ACA AAG GTT GGG GAA TTG

TCC TTT ATC TGC ACC TGG AAC ACA A

(11) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 255 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 123

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

GTA CAA CCC AGA ATC TAT CCT AGG TGG CAC TCT CGA AAA CCC AAT GGC

AGA GTC CTT GAA CAG AAG ATC TTT CTG CCC ACT AGG GGA ACC AAA GAG

CTG GAA TTT CGG TGA CTT GTC CTT TCC AAA CTT TTC CTG TGC TTG GCG

GAG AAG ATT CCA GAT GGC ATC CTC CTT TCC ATT AAC ACT TCG TGC CAC

AAC GGC ATG AGA AGG GAC CCG TGC AAG ATG GCA ATC TTT GAA CTT GTC

AAC TGG CTT ACG AGT

(12) INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 251 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 124

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

TA TCC TCC ATC CAA ACT CAT GGC ATC AGC TTC TCC TTT CAA CAC CAG
GGC GAT GCA ATC TTC TGT AGT GGA GGC CGA TGA GCA GGT CAC AGA TCC
TTC GCT CAA ACC ACT CCA CTG GTT ACA CTT GCG CAA CTC TTG CTC TCC
CAC CGC ACA CCA AAC GAC CCG CGC ACG CCG GGC AGC AAC TTC CTC CTC
ACT TTT CCT CAA GTT CTG AAT TGC AGT AAA GTA TCC GGA GCC AAG GTA
CAA CCC AGA ATC

(13) INFORMATION FOR SEQ ID NO:13:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 75 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(D) OTHER INFORMATION: leader sequence of protein 7S
basic globulin

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

ATGGCTTCTA TCCTCCACTA CTTTTAGCC CTCTCTCTT CTTGCTCTT 50
TCTTTCTTC TTATCCGACT CAGTC 75

(14) INFORMATION FOR SEQ ID NO:14:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 191 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(D) OTHER INFORMATION: leader sequence of protein β -
conglycinine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

ATGATGAGAG CGCGGTTCCC ATTACTGTTG CTGGGAGTTG TTTTCCTAGC 50
ATCAGTTCT GTCTCATTG GCATTGCGTA TTGGGAAAAG CAGAACCCCA 100
GTCACAACAA GTGCCTCCGA AGTTGCAATA GCGAGAAAAGA CTCCTACAGG 150
AACCAAGCAT GCCACGCTCG TTGCAACCTC CTTAAGGTG 189

(15) INFORMATION FOR SEQ ID NO:15:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 250 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 125

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

GAGCAATCCC ATGGGGATAT TCCAACCTGC AGTCCTGTCC ACGGCGGTGT 50
GGCAGGACTT CTTGCCTTTC ACAGAGTTCC AGGTAAGGCT AGTGTCTGAT 100
CTCCTAACCA CCGCCACAGC AAGATATCCT TCCACAGGTC TATCCACACA 150
GTTAGGATCA GGGTCACTGC TTTGTTGTGA TTTGTAGTTC TCTGCAAGAC 200
AGGCACCAAA CCACATTTAC CTGCAGTGTAAACATATCCT CCATCCAAAC 250

(16) INFORMATION FOR SEQ ID NO:16:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 254 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 126

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

CCATCAGTGT TCTGCAAGAC AGTGACATCT TTCACAAATG CAACGTCTCC 50
AGCATTCTCA GCCAAGCAAC GGAAAGCCCC AGTGTAAACCG TAGTATCTCT 100
CGTTGCTGTT GGGAACGCAC TTATTCTCAC CTTGCTCATC TCCAATACAC 150
AAAGCACAGA GATTAGATCT TGGGTCAGAA CCAGGGCAC AGCTTGACT 200
GAAATATTCA TCAAATTGCA AGGAGCCGT CTGGTTGAAG AGCAAGCCCA 250
TGGG 254

(17) INFORMATION FOR SEQ ID NO:17:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 229 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 127

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

GCAGTCAGAT CCATTTCTAC CAAATTTAGC CTGTTGGTGG AGCAACACCT 50
GTTTCAAGCG TTCCACCTTA TCCATACGAG ACACCACAGC ATGATTGGG 100
GCCATGGCAA GATGGCAGCT TCTAGCTTCA GTCACAGGCT TACGTTGCC 150
ATCGAGGCAC AGCAACGCAA AGTCTGCAAG CTTCAAATCC TTAGCCCATG 200
CCTCATTGTT ATTTCCATCA GTGTTCTGC 229

(18) INFORMATION FOR SEQ ID NO:18:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 210 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 128

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

TTACTTCCTT AGGAATTACAC AGGCTTCTAG GAGTGGGGAG GTTGAGCACT 50
TTTCAGATT AGTAATGCCT GCGACATACT GTGGTCCCAA ATATTTTCA 100
TATGTTGTTT TGCCATGGAG TCTGGCAAGA CACTCAGTGT TGTCATTGAA 150
CAAAAGGTTT TTGGTTTCAG ACTGGAATAA GCAAAACTTG TCCGGGCAGT 200
CAGATCCATT 210

(19) INFORMATION FOR SEQ ID NO:19:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 30 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 129

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

GGATCCATGG GCCGTAGGAG AAGGAGTGT

30

(20) INFORMATION FOR SEQ ID NO:20:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 28 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 120

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

GAGCTCTTAC TTCCTTAGGA ATTACACAG

28

(21) INFORMATION FOR SEQ ID NO:21:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURES

(D) OTHER INFORMATION: sequence of promoter of gene encoding 7S basic globulin

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

TAAAATAATC TATACATTAA AAAATTTGAT TTTAAAATT TAGAAATTCA	50
TGATTTTATT TTTTTTACG AGAAATCCGT TAATATTGTT AAAATATTAC	100
CAACTAATTG ATAAATTTA TTTAAGGCA ATTAAGCATG TTTGATAAAA	150
TATATATATT GTTATAAATA CTTTCAAAAA GTATAAAGTT GATGATGGCG	200
TGGTGGTAGA TTATTTAGT TCTAGGTTCG AATGCAAGTT GGTTTAGACA	250
TTTAGCCTTA TTCTTTTTC TAACCAAAAT AAATGTAAAT GGAAAACCTT	300
TAGGAAAAAA AAGAAATCAA AATTGAAAAC ATCATCCGGT GGAGTCGAGA	350
AGCCCACACC CACGTGACCC AACAAATATTA AAATAAGAGT TTGCTCTACA	400

GTAAATGCGA	TACTTTTTA	TTCAATACTT	TTTCCACTTC	TAAAATCTG	450
GAGATTTGCA	CCGTTAACTA	ATTAAGTGT	ATATCCAACG	GTCCTAAAAA	500
AACTTGTGTA	CCGTGCCTCA	CATTCAACT	TTGCGCACCC	TGAAAGCCGT	550
TATGTTAGG	TTAGTGTGTTG	CAACAGTTGA	AGCGCATCAC	TCAGGAGGCT	600
ACTTGGTCTT	GCTTTGCGT	CTTTGTTCA	ATTTTCACG	TGATTTGTT	650
GGTGAACACG	CGTACTTGAA	ACTTATTATA	AATTACATAA	TTTTATAAGT	700
TTCACTTCTT	ATATAATACT	CATATAATAT	ATAGGGTTA	GAATGCCAAT	750
TTTTAAAAAA	AGAATAAAAAA	AATAAATAGA	ATAAAATCGA	AAAAATGAAA	800
TGTAAAAAAT	TTGAGGGGGA	CAAATAAAAT	ATGAAAGTCT	ATTATTTAAA	850
TTTTCCATTA	GAATTCTATT	TTCCTTAGTT	AATATGAGCT	AGCCAGTTGG	900
GAGATACACG	AAAATGTCAT	GAAACAGTTG	CATGTAGGGA	AATTAATGTA	950
GTAGAGGGAT	AGCAAGACAA	AAATCCAAGC	CAAGCTAGCT	GCTCACGCGA	1000
ACTCGATCCA	CACGTCCCTT	ACAGAGTTTC	AAACGGATGA	AATCTGCATG	1050
GCATGCAACT	AAAGCATTGT	TCTCAGCTGC	CAAGTACCCC	TCACACTCAC	1100
CAACCCTTG	TTTTCTCCC	CATTGCATGT	TAACTCAAGT	TTATCCTTTC	1150
TTTGCTTCTG	GAAATTCAC	AAGCCTCAAA	CACGTCGACG	TCCAATCTTG	1200
TGACCAACAC	GGCCAAAAGA	AAAGAGAATC	TCATCCCGTT	CACACTTAGC	1250
CACTTAAAGC	TAGCCAAACG	GTGATCTTTC	TCTATATATT	GTAGCTCTCT	1300
AACACAACCA	ACACTACCAT	TATTCAATAT	TCAAACCTTG	CTCTATACTA	1350
CACACACTAG	AAGAATA				1367

(22) INFORMATION FOR SEQ ID NO:22:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURES

(D) OTHER INFORMATION: sequence of promoter of gene coding for β -conglycinine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

GTTTTCAAAT	TTGAATTTA	ATGTGTGTTG	TAAGTATAAA	TTTAAAATAA	50
AAATAAAAAC	AATTATTATA	TCAAAATGGC	AAAAACATTT	AATACGTATT	100
ATTTATTAAA	AAAATATGTA	ATAATATATT	TATATTAA	TATCTATTCT	150
TATGTATTAA	TTAAAAATCT	ATTATATATT	GATCAACTAA	AATATTTTA	200
TATCTACACT	TATTTGCAT	TTTATCAAT	TTCTTGCGT	TTTTGGCAT	250

ATTTAATAAT GACTATTCTT TAATAATCAA TCATTATTCT TACATGGTAC 300
ATATTGTTGG AACCATATGA AGTGTTCATT GCATTTGACT ATGTGGATAG 350
TGTTTGATC CATGCCCTTC ATTTGCCGCT ATTAATTAAT TTGGTAACAG 400
ATTCGTTCTA ATCAGTTACT TAATCCTTCC TCATCATAAT TAATCTGGTA 450
GTTCGAATGC CATAATATTG ATTAGTTTT TGGACCATAA GAAAAAGCCA 500
AGGAACAAAA GAAGACAAAA CACAATGAGA GTATCCTTG CATAGCAATG 550
TCTAAGTTCA TAAAATTCAA ACAAAAACGC AATCACACAC AGTGGACATC 600
ACTTATCCAC TAGCTGATCA GGATCGCCGC GTCAAGAAAA AAAAAGTGG 650
CCCCAAAAGC CATGCACAAAC AACACGTACT CACAAAGGCG TCAATCGAGC 700
AGCCCCAAAC ATTCACCAAC TCAACCCATC ATGAGCCCAC ACATTTGTTG 750
TTTCTAACCC AACCTCAAAC TCGTATTCTC TTCCGCCACC TCATTTTGT 800
TTATTTCAAC ACCCGTCAAA CTGCATCCCA CCCC GTGGCC AAATGTTCAT 850
GCATGTTAAC AAGACCTATG ACTATAAATA TCTGCAATCT CGGCCAAGT 900
TTTCATCATC AAGAACCAAGT TCAATATCCT AGTACGCCGT ATTAAAGAAT 950
TTAAGATATA CT 962